Paper No. 43

Date Entered: June 23, 2016

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

LG ELECTRONICS, INC., Petitioner,

v.

ATI TECHNOLOGIES ULC, Patent Owner.

Case IPR2015-00321 Patent 7,095,945 B1

Before BRIAN J. McNAMARA, RAMA G. ELLURU, and JAMES B. ARPIN, Administrative Patent Judges.

McNAMARA, Administrative Patent Judge.

FINAL WRITTEN DECISION 35 U.S.C. § 318(a) and 37 C.F.R. § 42.73



BACKGROUND

On June 26, 2015, we instituted an *inter partes* review of claim 18 of U.S. Patent No. 7,095,945 B1 (Ex. 1001, "the '945 Patent""). Paper 20 ("Dec. to Inst."). ATI Technologies ULC ("Patent Owner") filed a Patent Owner Response. Paper 23 ("PO Resp."). In support of its positions, Patent Owner cites to the declaration of Dr. William Mangione-Smith. Ex. 2003 ("Mangione-Smith Decl."). LG Electronics, Inc. ("Petitioner") filed a Reply. Paper 29 ("Reply"). In support of its positions, Petitioner cites to the declarations of Dr. Dan Schonfeld. Ex. 1004 ("Schonfeld Decl. 1"); Ex. 1012 ("Schonfeld Decl. 2"). Patent Owner filed a Motion for Observations on Cross Examination (Paper 32), which Petitioner opposed (Paper 35). An oral hearing was conducted on March 21, 2016, and the transcript has been entered into the record. Paper 42 ("Tr.").

We have jurisdiction under 35 U.S.C. § 6(c). This Final Written Decision is issued pursuant to 35 U.S.C. §318(a). We base our decision on the preponderance of the evidence. 35 U.S.C. § 316(e); 37 C.F.R. § 42.1(d). Having reviewed the arguments of the parties and the supporting evidence, we conclude that Petitioner has demonstrated by a preponderance of the evidence that claim 18 of the '945 Patent is unpatentable.

THE '945 PATENT (EXHIBIT 1001)

The '945 Patent explains that a transport stream ("TS") consists of fixed length packets based on a four byte header and 184 bytes of data payload obtained from larger data blocks. Ex. 1001, col. 1, ll. 61–64. Elementary Streams ("ES") are packetized into fixed or variable length packetized elementary stream ("PES") packets and PES packets are merged to create a program with its own system time clock ("STC"). *Id.* at col. 1, l. 65–col. 2, l. 9. ES within one program have periodic time stamps corresponding to the STC counter to indicate proper timing



for each ES. *Id.* at col. 2, ll. 10–12. Figures 1–4 of the '945 Patent illustrate conventional signal structures. *Id.* at col. 2, ll. 49–50.

The '945 Patent discloses a system and method for displaying multimedia programs in real time and/or storing them for subsequent display, including as a time shifted display in which the stored portion of the program is played back while new portions of the program are being stored. Ex. 1001, Abstract. The '945 Patent discloses three modes of operation: (1) a receive only mode, i.e., the Transparent Mode, in which a digital transport stream receiver ("DTSR") receives a live broadcast, which is accessed immediately and not saved (*id.* at col. 3, ll. 45–53); (2) a Continuous Time Shifting Mode, in which a received program is stored in the form of full transport stream packets or PES packets; and (3) a Part-Time Shifting Mode, in which a time shifted program is played at a user defined speed, e.g., fast forward, while the host central processing unit ("CPU") receives and stores a real time event. *Id.* at col. 4, ll. 1–8.

Figure 6 is a block diagram of a system using two digital transport stream receivers. *Id.* at col. 2, 11. 54–56. The '945 Patent discloses several programmed embodiments of the Part-Time Shifting mode using this system. *Id.* at col. 6, 1. 13–col. 7, 1. 48.

ILLUSTRATIVE CLAIM

Claim 18 is the only claim at issue and is reproduced below:

18. A method comprising:

determining a mode of operation;

during a first mode of operation:

receiving a multiplexed packetized data stream at a first demultiplexer;



selecting a first program from the multiplexed packetized data stream;

decoding a video portion of the first program for display;

during a second mode of operation:

receiving the multiplexed packetized data stream at the first demultiplexer;

selecting the first program from the multiplexed packetized data stream;

storing the first program;

during a third mode of operation:

receiving the multiplexed packetized data stream at the first demultiplexer;

selecting the first program from the multiplexed packetized data stream;

storing a first program portion of the first program;

providing the first program portion to a second demultiplexer;

selecting at the second demultiplexer a video portion of the first program portion;

decoding the video portion of the first program portion for display; and

storing a second program portion of the first program simultaneous to the step of decoding.

Ex. 1001, col. 9, ll. 33-61.

CLAIM CONSTRUCTION

In our Decision to Institute, we declined to construe the terms "first program portion" and "second program portion" because their definitions were clear from the antecedents in claim 18. Dec. to Inst. 6–7. Patent Owner contends that our determination that claim 18 recites no limits on the first and second portions, other than being a portion, e.g., some or all of the first program, is inconsistent with the



plain and ordinary meaning of "portion" and the context of the claim, as the term "portion" would have been understood by one of ordinary skill in the art. PO Resp. 11–12. Patent Owner contends that the term "first program portion" should be construed to mean "part" or "some" of the first program that is less than all of the first program. *Id.* Patent Owner cites the dictionary definition of "portion" as "a part or limited quantity of anything." *Id.* at 13 (citing Ex. 2007, 3 (Webster's New World College Dictionary)). Patent Owner further argues that the "first program portion" and the "second program portion" cannot encompass all of the first program, as that would render claim 18's third mode of operation meaningless. *Id.* at 14–15. According to Patent Owner, because step (i) of the third mode requires storing a "first program portion" and step (v) requires storing a "second program portion," in "first program portion" includes storing an entire program in step (i), there would be nothing left to store in step (v). *Id.*

Patent Owner distinguishes the second mode, in which a first program is stored, from the third mode, in which a portion, i.e., a second portion of the first program is stored. PO Resp. 13–16; *see* Tr. 22:19–24:23. The claim language does not define a program or program portion. The specification refers to time shifting a "viewed program," states that PES packets from various ES are merged together to form a program (service) with its own STC, and states that all ES components of a program are synchronized with the STC counter to indicate the proper timing of each ES. Ex. 1001, col. 1, ll. 12–13, col. 2, ll. 7–13. However, a program is not defined by any limitations of time or content. Thus, neither the language of claim 18 nor the description in the specification of the '945 Patent places specific constraints on what constitutes a program or a portion of a program.



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